

California **GARDEN**

JULY-AUGUST 1990

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ONE DOLLAR



HORTICULTURAL EVENTS

- June 15 through July 4 DEL MAR FAIR Flower & Garden Show
From Interstate 5 take Via de la Valle west to Fairgrounds.
1990 Theme: "Everything's Coming up Roses". Landscaped garden displays, floral arrangements, sales, demonstrations.
Daily: 10 a.m.-10 p.m. Admission: \$6 adults; children & seniors less. Free parking. Call 755-1161 or 296-1441.
- June 30 & July 1 SAN DIEGO COUNTY BRANCH, NATIONAL FUCHSIA SOCIETY, Show
Casa del Prado, Majorca Room, Balboa Park
Sat. & Sun.: 10-4:30 p.m. Free.
- July 1 SAN DIEGO NATURAL HISTORY MUSEUM "Focus on Botany"
Museum Classroom, Balboa Park
Workshop to sharpen plant identification skills.
Microscopes, plant specimens, & assistance provided.
Free with Museum admission.
10-2 p.m. No registration. Call Education Department: 232-3821.
- July 5 THE HUNTINGTON First Thursday Garden Talk
1151 Oxford Road, San Marino
Ferns & their uses in the home landscape. Plant sale.
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- July 7 CALIFORNIA RARE FRUIT GROWERS, SAN DIEGO CHAPTER, Sale
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10-2 p.m. Open to the public.
- July 8 SAN DIEGO COUNTY DAHLIA SOCIETY Specimen Show
Casa del Prado, Majorca Room, Balboa Park
1-4:30 p.m. Free.
- July 15 CONVAIR GARDEN CLUB 40th Annual Summer Show
Casa del Prado, Majorca Room, Balboa Park
1-4:30 p.m. Free.
- July 21 & 22 SAN DIEGO COUNTY ORCHID SOCIETY 4th Annual Summer Show
Casa del Prado, Majorca Room, Balboa Park
Sat.: 12-4:30 p.m.; Sun.: 10-4:30 p.m. Free.
- July 28 & 29 SAN DIEGO GESNERIAD SOCIETY 14th Annual Show
Casa del Prado, Majorca Room, Balboa Park
Sat.: 12-5 p.m.; Sun.: 10-4 p.m. Free.
- Aug. 4 & 5 SAN DIEGO COUNTY DAHLIA SOCIETY Show
Casa del Prado, Majorca Room, Balboa Park
Sat.: 2-5 p.m.; Sun.: 10-4:30 p.m. Free.
- Aug. 5 SAN DIEGO NATURAL HISTORY MUSEUM "Focus on Botany"
Museum Classroom, Balboa Park
Workshop to sharpen plant identification skills.
Microscopes, plant specimens, & assistance provided.
Free with Museum admission.
10-2 p.m. No registration. Call Education Department: 232-3821.
- Aug. 11 SAN DIEGO FLORAL ASSOCIATION Bus Trip to Temecula
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Advertising

Lynn Beyerle

Circulation

Roy Jones

SALES REPRESENTATIVE

Dr. Donald Boyer

442-4242

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by Kathy Puhlava

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DEVELOPMENT AND HISTORY BALBOA PARK BOTANICAL BUILDING

by Lucy Warren

THE LOVELY LATH BOTANICAL BUILDING in Balboa Park is one of the few permanent structures built for the 1915 Panama-California Exposition. The event was dubbed the "Garden Fair" because of its diverse and abundant plantings. It stands today as a gracious monument to the enthusiasm and spirit of turn-of-the-century leaders of San Diego.

By 1909 San Diego had a population of only 35,000 and was still far from becoming one of the ten largest cities in the country. But the city leaders were proud and ambitious for their community. Enthusiasm was high, and ideas flourished as San Diego began to conceive an exhibition to commemorate the opening of the Panama Canal. The canal would "open up" the West Coast to additional trade and industry.

On Sept. 3, 1909, the Panama-California Exposition Corporation was formed and plans were sent to Sacramento. The same day San Francisco preempted San Diego's plans with announcement of an exposition of its own, the Panama Pacific exposition. Congress budgeted \$5 million to celebrate the opening of the canal but excluded San Diego from this funding. Undaunted, San Diego adjusted its focus from a world-wide event to one highlighting the western hemisphere, and provided its own financing.

The purpose of expositions is not only to attract visitors, but also to provide examples of technological advances. San Diego was also anxious to display its achievements in agriculture. Rather than hosting static displays of new products, the exposition would demonstrate active technology. Newly developed farm equipment would work on an actual demonstration farm, complete with fields and animals. Manufacturing processes would be shown, not just products. It was hoped that the exposition would complement the event in San Francisco. These ideas were exciting and grand, but there was much to be done.



The Botanical Building with its facade and "lagunas" as they were first planted.

Balboa Park was still an undeveloped mesa with limited vegetation. Only with adequate water could this land become the lush paradise which would attract exposition visitors and future residents. Even as resources were being pooled to develop the exposition site, community leaders were thinking of the long-term benefits to the park area.

By May, 1911, the city had installed a watering system and established a 30-acre nursery with the initial 150,000 plants to adorn Balboa Park. By the opening of the exposition the number of plants used was anticipated to rise to five million.

In August, Alfred D. Robinson, begonia fancier and President of the new San Diego Floral Association, presented the idea of a monumental lath house and glass enclosed structure to display the variety of plants which would grow in San Diego. This building and its accompanying gardens would be a focal point for the exposition, underscoring ideal plant climate as one of San Diego's greatest assets. In his dream, Robinson envisioned the botanical building as a permanent structure for the enjoyment of San Diego residents into the future.

This concept quickly gained strong support among key civic leaders and Floral Association members and stimulated discussion regarding size and content. The construction budget was set at 30 thousand and it became an integral part of the design of the exposition. Referred to as the "Lath House", the structure was officially named the Botanical Building and designed to house both permanent and seasonal plantings.

Carleton M. Winslow, Sr., associate architect for the exposition, designed the building. He was assisted by Frank P. Allen, Jr. and Thomas Hunter.

The plans included proven architectural techniques and modern materials. To provide the height necessary for mature plants, a classic cruciform barrel vaulted design was employed. Painted steel trusses support the redwood lath form. A large glass-covered wing extends north

from behind the central dome of the open-work lath structure. A stucco arcade runs along the south side. This arcade tied the building with the rest of the exposition by including some of the Spanish Colonial architectural details of the rest of the buildings in the park. Still one of the largest open-work lath structures in the world, the building is 250 feet long, 75 feet wide and 60 feet tall at its center.

There are those in San Diego who suggest that the superstructure of the building was originally intended as a Santa Fe Railroad station and was sold to the exposition. No extant records support this theory. Accounting records state the final cost of the structure as \$53,386.26. For twenty-five cents, local residents could watch its construction.

In the original design, lush open gardens and two reflecting pools filled with water lilies complemented the form of the building, adapting influences from Spanish and Persian designs. Next to the building the smaller rectangular pool was called Lagunita de Las Flores (Little Lake of the Flowers). Separated by a bridge-like balustraded walk, the larger oblong pool, Laguna de Las Flores (Lake of the Flowers), extends to the Prado. The walkway extends east and west beyond the front of the building to accompanying gardens. The original pergola at the western end of the garden no longer exists.

The Panama-California Exposition opened at the stroke of midnight when President Woodrow Wilson pressed a button and turned on the lights, heralding the new year 1915.

From the beginning residents and visitors marveled at the beautiful and interesting displays in the Botanical Garden and Botanical Building. One author of the period suggested, however, that the whole idea of the Botanical Building was a joke. Eugene Neuhaus wrote in his book *The San Diego Garden Fair* (Paul Elder and Co., 1916) that the "incarcerated flowers, which seemed as if confined in a hospital," grew equally well in the open, surely high praise of local climate.

AS TIME WENT ON:

A worthwhile long-term investment for the city, the Botanical Building remained virtually intact for the 1935 California Pacific International Exposition, where it again focused on plants needing some slight protection from the sun.

During World War II, the Laguna de Las Flores was fenced and used as a swimming pool for patients of the Navy Hospital. In the summer of 1945 it was opened to city children for swimming. Then the building was closed and neglected for over a decade.



The restored lily pond in front of the Botanical Building.

The Botanical Building has seen only one renovation, in the early 1950's. At this time the glass-covered north wing was removed, as was the engaged arcade that adorned the frontage along both wings. The entrance was extensively renovated and simplified by removing much of its Spanish Colonial detailing, though keeping its basic form. It reopened on July 1, 1957, after this renovation and remodeling. In 1965 the balustraded walk in front of the building was restored.

Maintained by the City of San Diego, Park and Recreation Department, the Botanical Building continues to house both permanent and seasonal plants. Many of these plants are the same species originally included in the building's gardens. Thus, nearly eight decades after its initial conception, the Botanical Building continues to supply pleasure and enjoyment to thousands of visitors each year.

Partial Bibliography:

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* * *

A CONSERVATORY WITHOUT GLASS

by Kathy Kalas Puplava

TODAY THE BALBOA PARK BOTANICAL BUILDING serves the same purpose as it did in 1915, providing Balboa Park visitors an open-air conservatory. Although the Botanical Building and the Lily Pond are seldom referred to as the "Lath House" and "La Laguna" as they were 75 years ago, the casual visitor can still enjoy a stroll in the shade among lush, tropical foliage and colorful holiday displays. Amateur and professional photographers and artists continue to find attractive subjects. Botany students of all ages study plant identification in this "living classroom."

The Botanical Building is one of the most highly visited and maintained "gardens" in Balboa Park. Approximately 100,000 people from all over the world visit each year. The hours are Tuesday-Sunday, 10 am - 4 pm (Closed on Thanksgiving Day, Dec. 25 and January 1). The building is staffed seven days a week in order to provide the maintenance level required for such an intensely planted area.



The 1915 exposition included a working farm with a fruit tree orchard.

Donna Nordstrom and Byron Wishnek are the two supervisors in charge of the Botanical Building. Between the two of them, they have 28 years of experience with the City of San Diego Park and recreation Department. It is through their efforts that the Grounds Maintenance Staff is organized, supplies and equipment are ordered and displays designed and installed.

Major holiday displays are installed by the team effort of the Balboa Park Grounds

Maintenance Workers. The daily plant care, display maintenance and other installations are the responsibility of two Grounds Maintenance Workers assigned to the Botanical Building. Paula Savage and Johnny Stellini work a split schedule in order to staff the building seven days a week. They often start work at 6 am in order to water and clean the displays before the doors open at 10 am. They monitor the building and plant displays throughout the day (this also includes answering hundreds of questions from the public). At the end of the day, they usher out the last visitors and secure the building. Monday is a valuable workday to the Botanical Building Staff. That is the day when the front door remains closed and major display renovations, tree trimming, fertilization and pest control can be accomplished. Staff are assisted in many of these large scale maintenance operations by the Park and Recreation Department Support Service Tree Trimmers and Pesticide Spray Crew. The City Nursery, located in Morley Field, houses the orchid and other collections and propagates plants throughout the year for display changes.

The Botanical Building Staff does a lot of hand watering. Although this can be time consuming, it allows them to provide individual attention to the varied species and keep a sharp eye out for potential pest problems. The building is not totally enclosed, but the air circulation is reduced and pests can become a problem if not curtailed in time. When a problem does occur, cultural control and insecticidal soap are the first choices, pesticide use is always minimized.

There are 1100 permanent plants (about 300 species) growing in the Botanical Building. The soil in the beds support a great deal of plant life. Nutrients and organic matter must be replenished on a regular basis. Mulch and slow release fertilizers are applied several times a year along with regular liquid fertilizations of fish emulsion.

Although the park staff puts a lot of extra energy into the maintenance of the Botanical Building because they consider it San Diego's botanical showpiece, much of the credit must go to the citizens of San Diego. Many individuals and groups have made generous donations to support

the plant displays. For example, one group, City Beautiful of San Diego, provides much of the December Poinsettia Display every year. It is largely through these donations that all of the holiday displays continue to awe park visitors.



Seasonally the Botanical Building has always had magnificent fuchsia basket displays.

The Botanical Building is currently undergoing a structural engineering evaluation. A consultant will make recommendations on the structural repair or replacement necessary and the repairs should begin within a year.

The Lily Pond continues to bloom as "Laguna de Las Flores." The water lilies and lotus are planted in large redwood boxes submerged beneath the surface. Twice a year the pond is drained over half way to fertilize and repot the boxed water plants and clean debris from the bottom. The weekly maintenance of the Lily Pond is currently under contract with Calypso Lake Management. Since the Lily Pond has no filtration system, the water has been brought to an ecological balance to minimize algae growth and yet maintain the health of the plants and fish. The County Department of Agriculture has released Gambusia fish to control mosquito eggs that may be laid on the still surface of the Lily Pond.

Most of the operational support to the Lily Pond and the Botanical Building occurs before many visitors arrive at Balboa Park. Great care is taken to preserve the historical features of this area while enhancing the visitor's experience.

KATHY KALAS PUPLAVA is the Balboa Park Horticulturist.

BUS TRIP

TEMECULA WINE COUNTRY

Saturday August 11, 1990

Helen A. Gagliardi

BUSINESS PEOPLE TAKE NOTE. The next Floral bus trip has been scheduled on a Saturday so that you can take part. Many facilities prefer that bus loads of visitors arrive during the less crowded weekdays; but we shall be welcomed warmly at three different locations.

Our basic destination is Temecula where several wineries conduct tours, offer tastings, and serve a unique lunch. However as we journey north we shall pass that fabulous Tropic World nursery, and will certainly stop there. There's an impressive competitive institution across the road, you can make a choice. We also have a tentative invitation to visit a private garden in the area. Our hosts are hedging somewhat until they are certain that all their "bloomers" are in top shape.

If we leave Balboa Park by 9:30 am, we should have time to visit all three places and still be able to browse through the craft/antique shops that abound in Temecula - for those so inclined.

Members send check for \$27.00 (non-members \$29.00) with the completed coupon. Caterer wants a guest count by August 5th, so don't delay if you wish to be included in our buffet lunch. Any reservations received later than August 5th, may have to supply their own lunch and will be entitled to a pro-rated refund.

Additional pick-ups at Red Lobster in Grossmont Center, La Jolla Village and at Hadley's per request. Home by 6 pm, traffic permitting.

BUS TRIP AUGUST 11, 1990 TEMECULA LUNCH INCLUDED. MAIL COUPON WITH CHECK: \$27.00 members (\$29.00 non-members) to San Diego Floral Assn.

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Pick-up: Balboa Park [] La Jolla []
 Red Lobster [] Hadley's []

BUS SEATING ASSIGNED AS CHECK REC'D

SAN DIEGO'S "LATH HOUSE"

by Tineke Wilders

A STROLL THROUGH SAN DIEGO'S own Botanical Building is always a true pleasure for me. Especially when I have a chance to watch a great blue heron, just a couple of feet away from me, in the lily pond in front of the building, hunting for its Saturday morning breakfast, which could be a fish or a tadpole. This happened to me one beautiful morning in May, and I can assure you, this experience made my visit even more special.

Growing up as a child in my native country Holland, I have always loved the sight of the statuesque blue herons, which are abundant over there.

Ever since that Saturday morning, I secretly hope to see this heron again. I learned it is a female and she lives nearby. According to witnesses, she makes regular hunting trips to this lilypond.

That very same Saturday morning, another special treat came from the call of a bullfrog, at the south end of the bridge, hidden amidst the water hyacinth. I briefly felt I was back in the countryside.



The author pointing to one of the Begonia baskets at the west wall.

Photo by: David Long

But that day, I came especially for the Botanical Building and as I slowly walked toward the east entrance, I immediately noticed the newly planted flowerbeds, with colorful perennials and annuals, such as Mexican evening primrose, the deliciously fragrant heliotrope, sunny coreopsis, pink coralbells and a new orange hybrid of cosmos. The creator of these newly planted beds

on either side of the pond and in front of the two entrances, is Paula Savage, who is grounds maintenance worker with the City of San Diego and is in charge of the Botanical Building. She thoughtfully chose the colors yellow and orange as a theme to commemorate this year's Balboa Park's 75th Anniversary.

Entering the lattice structure of the Botanical Building, the plants that impress me the most are the variety of tree ferns, for instance the *Blechnum moorei*, which grows very similar to the Sago palm (*Cycas revoluta*). Tree ferns come from a variety of continents, such as the Tasmanian tree fern (*Dicksonia antarctica*) the New Zealand tree fern (*Cyathea dealbata*) and the Hawaiian tree fern (*Cibotium chamissoi*) in Hawaii known as the "man tree fern", where they grow huge to over 30 feet.

Seasonal flowering plants are used generously in the several square planters, as well as in the center circle planter and these change according to the season. During the month of May, we could enjoy lilies, Amaryllis and Cymbidium orchids.

May is orchid cactus (*Epiphyllum*) month and there must have been several hundred different plants in full bloom, in a riot of colors, hanging from the rafters along the North, South and East side of the building.

Large lava rocks are positioned in miniature ponds facilitating waterfalls and fountains, creating a lush humid environment for a variety of ferns, together with Bromeliads, and Epidendrum and Cattleya orchids. A lush carpet of babytears (*Helxine soleirolii*) thrives in the shade and the moist cool air.

An unusual looking fig tree (*Ficus roxburghii*) produces clusters of figs along its trunk, instead of at the end of its branches. A miniature forest of banana plants grows at the east side of the building.

Exotic looking Heliconias, almost seven feet tall, produce lovely light orange flowers.

On either side and above the employee work area entrance, along the North wall, are two specimens of the rare "grande" staghorn fern (*Platynerium grande*).

The most predominant flower seems to be

the Impatiens and several different varieties can be found, some familiar and some unfamiliar.

In my opinion, the most impressive collection is the begonia collection displayed along the West wall; there are a total of 45 different Begonias in bloom, each in their individual hanging cedar basket.



Left: Ficus foxburghii with figs along its trunk.

Center: Heliconias

Photo by: David Lang

Apparently, the Botanical Building is not only a safe place for exotic tropical plants to grow. Gardener Paula Savage told me there are bird

nests with Anna hummingbirds, Albert's Towhee and she even saw a Cooper's Hawk flying through.

When I interviewed Paula, she showed me one of her newest projects: a new herb garden with over 100 different plant varieties, which is planned for one of the square planters.

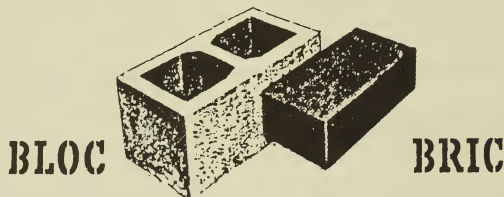
I asked Paula, who maintains the gardens inside the Botanical Building, if she had a favorite unusual plant: she calls it the "molted leopard plant" and gave me this name *Tussaginea*.

The Botanical Building is a perfect place for our tourist visitors to get a "sampling" of what grows in our climate and you'll hear plenty of "oohs" and "aahs" while strolling through. As for our local residents, I just hope that when they get out to their Balboa Park, they swing by the Botanical Building to see what's in bloom. Even if its only to remind them of what a lush tropical climate looks, smells and sounds like.

TINEKE WILDERS is a San Diego based gardenwriter/broadcaster. She writes a weekly column in the Sunday San Diego Union newspaper. She shows weekly garden tips on Channel 10 and is a regular guest on Channel 8 "Sun Up."

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HOUSE PLANTS DO CLEAN AIR

by Barbara S. Jones

ANYONE WITH HOUSE PLANTS knows that the air in their home smells clean. A two year study on the ability of house plants to clean air in an enclosed space has just been completed by the National Aeronautics and Space Administration and the Associated Landscape Contractors of America. And, house plants do clean the air.

In recent years the problem of maintaining clean air in an enclosed space has led to many experiments. In one sense the whole earth is an enclosed space. "If man is to move into smaller closed environments, on Earth or in space, he must take along nature's life support system," states the study's report. For the past 16 years, scientists have been exploring the problem of "sick building syndrome". People experienced skin, eye and respiratory discomfort in tightly enclosed mobile homes and sealed air-conditioned buildings. It was originally thought to be caused by microorganisms, but has proved to be caused by irritating gasses given off by the materials used for and in the buildings. The major volatile gases found were benzene, trichloroethylene, and formaldehyde. The major items which give off these gases are:

BENZENE-ink, paint, plastics, rubber, detergents, pharmaceuticals, dyes, etc. (Irritates the skin and eyes, can cause headaches, nausea, etc. and can lead to chromosomal aberrations and leukemia in humans.)

TRICHLOROETHYLENE (TCE)-dry-cleaning, printing inks, paints, lacquers, varnishes, adhesives. (Liver carcinogen.)

FORMALDEHYDE-all indoor environments. Widely used in UFFI foam insulation, particle board and pressed wood products. Used in grocery bags, waxed paper, facial tissues, paper towels, fabric stiffeners, wrinkle resisters, water repellents, fire retardants, adhesive binders, permanent-press clothes. Produced by cigarette smoke, and heating and cooking fuels. (Irritates the mucous membranes of eyes, nose, throat and causes headaches.)

NASA PLANT STUDIES

SIXTEEN COMMON HOUSE PLANTS which are inexpensive, easy to grow, easily obtained and

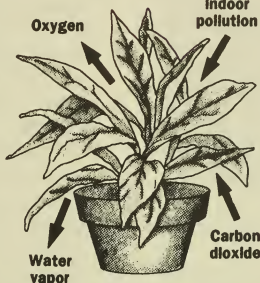
need low light levels were used for the NASA-ALCA experiments. (Not all of the plants were used for every experiment.) It is proven that plants remove carbon dioxide from the air and release oxygen in the process. These tests were conducted to see if common volatile gasses could be removed from the air during this process.

The plants were tested in sealed plexiglas containers with controlled environments using accurate measurement devices. Sterile soil was tested, then plants growing in soil, then the plants with the leaves removed. It was found that more volatile chemicals were removed from the air when the plants were in pots where maximum soil surface was exposed. (When lower leaves that touched the soil were removed, more chemicals were removed.) Evidence indicated that the soil microorganisms growing with the plants were very effective in utilizing the chemicals.

The implication of the report was that the root-soil zone appeared to be the most effective area for the removal of volatile organic chemicals from the air. All of the plants tested did remove some of the chemicals as well as carbon dioxide from the air.

The plants tested were: *Chamaedorea selfritzii* (bamboo palm); *Aglaonema modestum* (Chinese evergreen); *Hedera helix* (English ivy); *Ficus benjamina*; *Gerbera jamesonii*; *Chrysanthemum morifolium* (Florists mum); *Sansevieria laurentii* (Snake plant); *Spathiphyllum "Mauana Loa"* (Peace lily); *D. deremensis "Warneckii"*; *D. marginata*, *D. massangeana* (corn cane); *Philodendron oxycardium* (heart leaf); *P. domesticum* (Elephant ear); *P. selloum* (lace tree); *Chlorophytum elatum* (spider plant); *Musa oriana* (Banana); *Scindapsus aureus* (Golden pathos); and *Aloe vera*.

In these experiments the most effective plants for the removal of formaldehyde were the banana, snake plant, English ivy, bamboo palm, and the heart leaf philodendron. The most effective plants in removing Benzene were Gerbera daisy, pot mum, English ivy, and snake plant. The



most effective plants in removing trichloroethylene were the Gerbera daisy and English ivy. Remember, not all 16 plants were tested on all chemicals and there may be many other plants not tested that are equally, if not more, effective in removing volatile chemicals from the air. The experiments are just beginning and many more need be done before the "world's best air cleaner" plant can be identified.

Today it is very stylish to have house plants. Slick publications show home interiors loaded with plants, jewelry and fashions are shown with plants, celebrities sit with plants. Many of these plants are artificial. Homes and business are loaded with artificial plants. Unfortunately, most of the artificial plants increase "sick building syndrome" problems. Not only do the plants give off volatile chemicals, but they collect germ-carrying dust. Enclosed environments would be healthier and smell better if artificial plants were eliminated.

In conclusion, our great-grandmothers knew what they were doing. At least one large pot of

Sansevieria laurentii, commonly called Mother-in-law's tongue or snake plant, had to be placed in the parlor of a well-appointed Victorian home. Not only does this plant remove all three of the volatile chemicals from the air, but it is so easy to take care of it is almost impossible to kill, and anybody will be happy to give you a piece. To celebrate the "4th", start a pot of this historic American house plant and start cleaning up your personal air. You'll be doing a little something to help make America a healthier place to live.

* * *

Reference: "Interior Landscape Plants For Indoor Air Pollution Abatement" Final Report, Sept. 15, 1989. NASA, J.C. Stennis Space Center, MS.

* * *

Ed. note: It has been estimated that it takes one growing houseplant for every 100 square feet to clean the air of an average home.

BARBARA JONES majored in Botany at SDSU. She was a 7th and 8th grade General Science teacher in San Diego.

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1¼"	4TO Rd/No Saucer	\$3.05	\$6.25	10	\$10.00
2"	TO5 Rd/No Saucer	\$1.10	\$2.50	25	\$22.50
2½"	TO6 Rd/No Saucer	\$1.10	\$2.50	These reservoirs include wick.	
2½"	5.5A Rd/No Saucer	\$1.10	\$2.50	The 1¼" and 1½" hole sizes may be combined for quantity discount.	
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WHO READS CALIFORNIA GARDEN

By Lucy Warren

FOR OVER EIGHTY YEARS, since July, 1909, the San Diego Floral Association has continuously published California Garden magazine. Currently over 2,500 subscribers receive each issue.

San Diego County has long been recognized as a unique horticultural environment. The coastal region lies within an hour's drive from mountains, which, in turn, immediately tumble down to the desert, making for many microclimates within the county. Southern California is far enough south to permit the growth of many tropical plants, yet its higher elevations encourage plants which need winter cold to flourish.

Founding President Alfred Robinson described the mission of California Garden as follows:

"Though the publications devoted to gardening in the United States are most numerous and meritorious, they utterly fail as guides in San Diego. No rain in summer, no snow or frost in winter, a green and growing land at Christmastide, entirely upset their calculations. Florally, San Diego is a law unto itself, and this magazine hopes to emphasize the workings of that law."

Intended to meet a local need, the majority of the circulation, 84%, consists of San Diego County residents. Another 9% of the subscriptions include other Southern Californians. But interest extends beyond the geographical boundaries of Southern California.

California Garden Circulation

San Diego	84.2%
Other Southern California	9.4%
Other West Coast	3.5%
Other U. S.	2.5%
Foreign	0.4%

Sixty-two libraries subscribe to California Garden magazine through subscription services.

Even prior to glasnost California Garden was received in the USSR, with issues going to both Moscow and Leningrad. Other European subscriptions are sent to Sweden and West Germany.

Climate and soil conditions similar to San Diego make subscriptions to Bulgaria, Israel, and Australia reasonable and understandable. Our

Venezuelan subscriber has been taking the magazine since 1965.

One may wonder why those in colder climates would subscribe. A long time non-local subscriber has indicated finding the featured "Now is the Time" articles ideal for timing hothouse planting and care.

A lucky six percent of our subscribers receive California Garden as a gift . . . not a bad idea for friends who enjoy gardening, wherever they may be.

Lucy Warren is a professional in market research who loves to garden.

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BARBARA'S BASIC BOTANY #2

SCIENTIFIC NAMES ARE USED to identify plants. A common name in one part of the world or in one part of the United States may be used to describe different plants someplace else. One of the best examples of such confusion is the biblical Eve's apple. Some researchers claim it was a peach while others claim it was an orange. Without a botanical name we'd never know its true identity.

Plants can be grouped in many ways - food plants, textile plants, plants with blue flowers - but this is hardly an exact identification. With over 300,000 species of plants, there is need for a system.

TAXONOMY is the branch of botany that is primarily concerned with classification and identification. Structural vegetation (leaves, stems, etc.) and flowers and the reproductive system of the plant are the universally accepted basis for classification.

Two names are necessary to identify a particular plant. It's called a binomial system. The genus name comes first telling what group the plant belongs to, followed by the species or specific name.

The lowest or basic classification is the **SPECIES**. A single kind of pine is a species, a white clover is another species, and a lily is another. A species includes plants which are alike and can breed with each other. Individual plants

within a species are called **VARIETIES**. Individual varieties maintained by man's efforts are called **CULTIVARS**.

The next level is **GENUS** (plural **GENERA**), a group of closely related species; for example, roses. All kinds (species) of roses such as damasks, chinas and teas are in the genus *rosa* because they all have structures in common.

The next level in botanical classification is **FAMILY**. This is probably the highest level that the home gardener will use. (If you are interested, any good botany or biology text will explain still higher levels of classification.) A family is a group of closely related genera. For example, the rose family is composed of the rose genus, the apple genus, the peach genus, the strawberry genus, and others. The scientific names of families end in "-ae;" so the rose family is **Rosaceae**.

Most scientific names give or state the name of the **GENUS** (written with a capital letter) and the **SPECIES** (written with a small letter). Before the 1970's, the species was written with a capital letter if it was named for a person or a country. Most scientific names are Latin or Greek words and their use is governed by rules established by international congresses of biologists. If there is one, the **VARIETY** is added after the species name.

One of the delightful stories told about Kate Sessions was that when she became annoyed she would shout or mutter scientific plant names. Many of her workers spoke little English, and consequently she got an undeserved reputation for having a tremendous vocabulary of curse words.

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DRIP IRRIGATION

by Rob Hansen

AS AN AVID GARDENER, the current drought and water conservation are utmost on my mind. The recent barrage of TV news stories on the subject caught my attention. I watched with great interest as TV crews scrambled around the country looking for stories telling how we all can save water.

The tales varied from station to station -- everything from irrigating plants in bath water to putting a brick in your toilet tank, aired each night. Through all this hype, not one station provided any real practical information. One afternoon, I received a call from a local TV station. They wanted to do a story on ways to save water in the garden. For almost two hours we toured the grounds of the historic Schumann-Heink estate on Mount Helix. I showed them dozens of easy ways the average home owner could have a beautiful garden and still cut water use from 20% to 80%. When the story finally aired, most of the important information had been edited out, and the story joined the long list of other mundane reports on water conservation.

What the media failed to report was the simplicity and ease of installing a home drip irrigation system. Faced with scarcity and rising water costs, the use of drip irrigation has dramatically increased among smart home owners. The experience gained through agricultural use, now makes it possible to better irrigate trees, shrubs, ground covers, flower beds, vegetable gardens, hanging plants and lawns as well. Home irrigation systems range in size from a few plants to several acres. Drip irrigation is probably the most cost effective method of watering available. It enables the homeowner to place water where it is needed, when it is needed, and in the exact amount that is needed.

It is a simple concept. By applying steady, precise amounts of water to a specific area at a slow rate, water seeps into the soil and moves laterally by capillary action beneath the soil's surface. Sprinklers shoot gallons of water into the air, much is lost to evaporation, even more to overspray. No matter how much we water concrete, asphalt and rocks, they will never grow. Drip irrigation applies water to a small area at the base of each plant, there is little or no runoff. Weed growth and snail population are reduced,

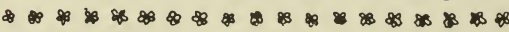
and erosion is eliminated.

Anyone can install a simple drip system to a hose bib in just a few hours. All of the supplies you need can be found at your local irrigation supplier. They can answer your questions and help with a plan to meet your needs. They are knowledgeable and carry quality agricultural grade products. Avoid the garden kits you find in most home centers. With these kits, you probably pay more for the packaging than the materials. There's not much uniformity in the industry, one brand's fittings may not fit another's hose. Trickle Soak Systems in Santee is a good choice for supplies. They carry quality, state-of-the-art materials and the staff is knowledgeable and eager to help.

If you are not yet ready to plunge into the world of pressure regulators and emitters, you can still help to conserve water and enjoy the benefits of drip irrigation. There are several good sprinkler conversion heads on the market. They have built-in pressure regulators and filters. You simply replace your old sprinkler head with one of these, place the tubing at the base of your plants, and you're all set. Olson Irrigation makes one that can water up to 12 plants from a single riser.

Whether you have a simple hose bib hook-up to just a few plants, or an elaborate system throughout your entire garden complete with time clocks and fertilizer injectors, drip irrigation saves time, saves money, AND saves water! It allows you more time to enjoy your garden, and your plants will love you for it.

ROB HANSEN is a horticultural consultant and Vice President of the University of California Cooperative Extension Master Gardener Program.



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GERANIUMS ARE WATER WISE PLANTS

by Gerald D. Stewart

THE METROPOLITAN WATER DISTRICT of Southern California has suggested the use of drought-tolerant plant material because of the potential water shortages we are facing. To bring attention to the situation they have asked nurserymen to label plants that withstand drought. One of their new slogans: "Geraniums are water wise."

While there has been a lot of information lately about the upcoming water shortage, this doesn't mean that it is time to give up on color in your garden. Geraniums are amazingly drought-tolerant, and many kinds will bloom year 'round with the thriftiest use of water.

Most geraniums are botanically *Pelargoniums*, including the common garden geraniums referred to as zonals, the ivy-leaved types and regals (also called Martha Washingtons). The plants we know of as geraniums are hybrids of wild species from areas in South Africa with a climate very similar to Southern California. As a consequence, once they are established geraniums

can survive on little more than rain water. They will, of course, perform much better with some additional irrigation.

Once established in the landscape, all of the main types of geraniums, zonals, ivy-leaved, regals and scented, will perform admirably on as little as a monthly watering and optimum results can be obtained with two or three waterings a month.

The regals and many of the scented geraniums actually prefer less water during the hot months. They enjoy a little "summer dormancy." Modern zonal and ivy-leaved kinds have no regular dormant period and can be kept blooming year 'round with moderate amounts of water and balanced fertilizer. It is nice to know that should major water rationing occur, your established geraniums of all types will go into dormancy to conserve moisture, then revive with the first rains.

In containers geraniums can weather very dry conditions and survive. One large geranium specialist in Germany maintains hundreds of cultivars of geraniums "in storage" by keeping them in a very dry condition. Should their breeding program ever need a particular cultivar, they merely start watering and it revives rather quickly.

For optimum performance geraniums should be planted in a loose, well-draining soil or soil mix, watered and fertilized regularly. It is important to remember that while geraniums will survive on neglect, they thrive on good soil, fertilizer, water and air flow.

If fears of an ever-increasing drought causes you to hesitate colorscape your yard, feel confident in choosing geraniums because in all but the desert areas of Southern California they will survive a drought to nought another day.

Gerald D. Stewart studied Ornamental Horticulture at Cal Poly, San Luis Obispo and currently operates New Leaf, a geranium specialty nursery.



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DO YOU REALLY WANT TO PLANT THAT TREE?

by Robert D. Horwitz

WHAT WILL THIS TREE LOOK LIKE twenty years from now that you are about to plant in your yard from this container? This simple twiggy thing standing there so presumptuously - will it become a giant, tall and stately, or will it become bushy or small and dainty?

Perhaps the best way to determine what your new tree will look like is to go to an area such as Balboa Park, or the Zoo, or a mature neighborhood and look at your variety of tree after it has reached maturity. You can see for yourself how far to plant it from structures, how the roots will heave up the ground, what kind of a mess you will have to clean up and how far the branches will spread and what kind of shade they will provide.

Many a home owner has cursed the day he had to pay for the damage that a tree unwisely planted has caused. The major kind of damage encountered are cracked building foundations and slabs from invasive roots, rotten roofs from accumulated detritus, heaved and broken driveways and sidewalks from root damage. There can be damage to house and cars from fallen branches and the possibility of the toppling of the tree itself. With catastrophes in mind, it pays to choose your trees wisely and plant them appropriately so that you get pleasure and positive rewards without the hazards. Work with the trees list on pages 114 and 115 of Sunset Western Garden Book or pages 17-19 in Roland Hoyt's Ornamental Plants for Subtropical Regions.

Most of the trees grown in the San Diego area are imports from all over the world. Our natural tree population is very limited and consists of mainly drought resistant types with shallow roots and low branching limbs like incense cedar. These are mostly evergreen, although there are a few deciduous trees such as the Sycamore which grow naturally in watered canyons. Native alders, willows and cottonwoods are also riparian plants, used to available water. Typical of the evergreens is California Holly, or Toyon, which is usually a bush, but with proper trimming, becomes a rugged slow-growing tree with broad, tangled branches.

The most popular trees in this area (a non-

inclusive list) are: cedars, conifers, oak, eucalyptus, acacia, jacaranda, podocarpus, palm, cypress, sycamore, elm, maple, and a favorite, the liquidambar. Each of these types have unique growing habits and cultural needs. Study them before planting.

Here are some of the characteristics of trees that need to be considered: The two most popular cedars in this area are the Lebanon and Deodar (*Cedrus deodara*). The Deodar can grow up to 80 feet in height with a branch spread of 30 to 40 feet. It is a large tree and should be planted with this in mind. Place it at least 30 feet from a structure. It makes a great deal of shade and keeps the sun off its immediate area. With all that shade under the tree, you can't grow sun loving plants. This means grass has a hard time. Tree roots will deplete the soil of nutrients that other plants may need. The Lebanon cedar (*Cilibrani*) has similar characteristics with a more conical shape. They both have invasive roots which can wreck sidewalks and driveways. A general rule to remember is that the roots go where the water is. A wide deep hole preparation makes for deeper roots.

Pines are very popular. They come in sizes and shapes from little bonsai to giant Torrey and Montereys that grow 60 to 100 feet, respectively. Shallow rooted in San Diego, they grow with gusto and in only a few years, certain ones may take over an area as broad as the tree is high. Larger pines roots are everywhere and needles get into everything including vent piping on roofs, which can quickly clog up a plumbing system that no amount of Drano will cure. The solution to this is to cover each vent with a fine wire screen that allows air to pass, but no pine needles. These needles decay very slowly and produce an acid condition in the soil. They can be a fire hazard, especially during dry Santa Ana conditions unless they are cleaned up often. Pines, because of their high wind profile and brittle wood, can cause damage during windstorms with falling branches. Being shallow rooted, the whole tree is in danger of toppling in a storm.

Most eucalyptus, aside from having huge trunks and branch systems that will shed huge strips of bark each year, drop leaves all year as



Eucalyptus trees are widely variable. A little studying before selecting a Eucalyptus for landscaping pays off.

well. It is competition from tree roots however, not toxins from fallen leaves, that inhibit plants trying to grow under eucalyptus. Plant eucalyptus with caution. There are two small to medium varieties so a study of the characteristics of each needs to be done prior to buying and planting. Root systems are shallow and can cause damage to structures.

Oaks do not do well along the immediate coast; they need some altitude to come into their own. Fine coast live oaks (*Quercus agrifolia*) grow in Poway, Escondido and El Cajon. Sycamores are attractive and grow into large, broad limbed trees as tall as 70 feet. They exude a foresty smell and are deciduous which means that if your ground cover is ivy or ice plant, you will have an interesting time getting rid of the fallen leaves.

Many acacias are short-lived with dirty habits, spreading their leaves, seed pods and pollen all over. They are bushy in nature, and may need constant pruning. Monterey cypress are fading trees in this area, an invasive fungus has killed off most of them. It was a beautiful tree which got wind sculpted in the coastal regions.

GOOD TREES:

There are plenty of wonderful trees to choose from that do not have all of these drawbacks.

Consider the Jacaranda whose gorgeous blossoms make San Diego glitter with the color of purple in spring. These trees get to be 40 or more feet high with a broad spread of branches that can be pruned with impunity. Roots have accommodated to our shallow water table and are not very invasive. There is, of course, loss of leaves in winter and dropping of blossoms in early summer, but these are easy to clean up. Podocarpus is ideal for small tree needs. It is slow growing, always green and not at all messy. This tree can be planted close to structures.

One of the better trees for yard planting is the liquidambar or American sweetgum. Perhaps there is residual longing for colorful autumns that makes this tree so popular. It is red and bronze from October to Christmas, After the leaves fall, the tree is bare for only a few months before sending out bright new green foliage. It is medium in height and spread, but should have a 10 foot clear area beneath. It is not a parking strip tree.

The Palm tree epitomizes Southern California. The two most prevalent are the Canary Island Date Palm (*Washingtonia robusta*) and the Mexican Fan Palm. Both are dirty trees, shedding fronds with a crash in high winds. They can become fire hazards if fronds that die are allowed to cling to the tree. Be careful of the Date Palm petiole stubs as they have sharp, penetrating thorns that can puncture gloves and hands.

To sum up, investigate in detail the growing patterns of trees that you might want to plant. Select wisely to avoid problems later on.

ROBERT D. HORWITZ is a retired aerospace engineer who loves to garden.

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HOUSE FLIES

by Barbara S. Jones

HOUSEFLIES ARE A MAJOR PROBLEM in gardens and homes in the San Diego area during the warm summer months. Flies are lovers of filth. They prefer animal manure, but will feed and lay their eggs on decaying garbage or on any organic material. They are carriers of diseases such as typhoid fever, dysentery, cholera, TB, etc. They bite humans and house pets, and can be the cause of painful skin infections.

Houseflies go through four life stages. In warm weather this cycle can be completed in less than three weeks. A female can lay up to 150 eggs at a time. An egg can hatch in less than eight hours into a milky white larva (maggot) about the size of a grain of long rice. This maggot feeds on decaying organic matter. In one week it grows to 3/4 inch long and becomes dark red-brown and crawls off to a dry place to become a dry-looking cylindrical pupa. The winged fly developing inside emerges in one week. Within two days this fly is ready to mate after which the female lays her eggs. A fly lives only a few weeks, and it is estimated that a female fly can mate and lay eggs from four to eight times during the adult stage. During cold weather each stage of the cycle slows down, but when it warms up, the cycle speeds up. This is why after a few warm days flies will appear.

Reducing the fly population requires a careful inspection of the house and garden. Lids on trash cans must be tight, and the cans should be washed weekly with scalding or warm water containing a strong disinfectant or soap. Animal droppings should be disposed of daily. Many

people prefer rock mulches around plants if they notice flies breeding in organic matter. Usually the heat in a compost pile is high enough to kill larva, but the gardener should examine the pile to make sure it is not a breeding place. Flies that get into the house can be swatted, knocked down with a kill-on-contact aerosol spray, or caught on sticky fly tape or in traps.

No matter how careful and diligent you may be, if you have a filthy neighbor, you will have flies. Just say 'goodbye' to any summer outdoor barbecue parties unless you erect a screen tent or have a screened porch. If the smell gets too vile from the neighbor's yard, or the filth too deep, you can contact your local Zoning Enforcement Department and make a written request for an inspector to investigate. If the situation is bad the guilty homeowner will be given a citation and must clean-up their property within a given period of time. Do take action because if the filth exists, rats and other dangerous household pests are probably breeding in the same yard. Also, if a fly infestation becomes heavy, it will take years to control the problem even though the area is kept clean.

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WILD ANIMAL PARK HERB WALK

Just try this blossom of borage
--for courage.

by Lucy Warren

FOR A DELIGHTFUL AND INFORMATIVE herb experience, consider joining Helen Chandler for a tour of the Herb Garden on the Kilimanjaro Hiking Trail at the Wild Animal Park. The tour starts at 10 a.m. on the first Saturday of each month. Helen, a long-time member of the Herb Society of America, loves to cook and to garden. She created the garden at Heritage Park in Escondido and volunteers at Quail Botanical Gardens.

She convinced the Wild Animal Park officials to let her restore the long neglected herb garden in August, 1988. Since then Helen, Bern Neil and their friends have created an environment where people are encouraged to touch, smell and experience herbs from around the world. San Diego gardens and climate favor herbs, many of which will grow in poor soils. Cooks and gardeners alike will be familiar with many of the plants, but others are unusual or may be a surprise to find in an herb garden.

Several species of a familiar herb are often included in the garden for comparison. For example, the Tuscan Blue rosemary is considered the best culinary variety, but the garden includes prostrate rosemary, with light blue flowers, and a pink flowering rosemary, as well.

Side-by-side it is easy to see the difference between plants of the same family, such as the

contrast of the coarse leaves of spearmint to the smoother, finer ones of peppermint. Encouragement to experience the feel, smell and taste of each mint, leaves no doubt about the differences. The former is preferred for use in tabouli and Middle eastern dishes, the latter makes a lovely tea. Both can add scent and interesting foliage to a bouquet or flower arrangement. But Ms. Chandler cautions that they are both aggressive in the garden.

Chili plants were not a staple in traditional Victorian herb gardens, but this New World herb is essential to Southwestern and Mexican cooking. Appropriate annuals for San Diego gardens, they vary greatly in size, shape and flavor intensity. Tiny potent Thai chilis join more familiar varieties at the Wild Animal Park.

Alliums abound - tricolor, society garlic, garlic chives, and more. These attractive garden plants have long lasting blossoms and are sometimes said to repel certain insects, such as aphids.

Roses, nasturtiums, and violets in an herb garden? Helen will tell you that they earn their place, as well as how to use rose scented geraniums in baking.

When pressed to name her personal favorite, Ms. Chandler asserts that she has many favorites. She particularly likes lemon thyme, one of the over two hundred known varieties of thyme. Other kitchen favorites include salad burnett, sweet marjoram, Italian parsley, and garlic chives.

This guided tour is free with admission to the Wild Animal Park.



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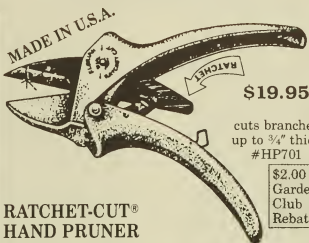
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A CULTURAL CALENDAR OF CARE FROM OUR AFFILIATES

Compiled by Penny Bunker

AFRICAN VIOLETS

Helen LaGamma

KEEP violets well groomed, don't crowd them. **KEEP** area clean, wipe down growing area with a mild solution of lysol and water. **USE** a fan to circulate the air. This is important to prevent mildew. **PLACE** pans of wet pebbles among plants. This increases needed humidity. **SPRAY** plants with warm water - warm water prevents shocking the plants. **USE** cool light tubes. If using natural lighting, place the plants a little farther away from the source. **MAINTAIN** a clean growing area - circulate the air and use the pans of wet pebbles. Tour African Violets will then weather even the hottest.

* * *

BEGONIAS

Margaret lee

GROOM and inspect plants regularly during the growing season. **TAKE** cuttings. **POT** the rooted cuttings and leaves. **CONTROL** for mildew - spot spray at first sign. **REPOT** to next size if needed. **FEED** tuberous begonias with "Hi-Bloom" and fish emulsion - use one tablespoon to one gallon of water.

* * *

BONSAI

Dr. Herbert Markowitz

PROTECT some plants by moving into a shaded area out of the direct sun. **CHECK** dampness - water those plants that need it - some as much as two and three times a day. **CHECK** for insects and pests; spray with diluted spray. **ROTATE** your trees in regards to sun exposure. **STOP** transplanting or repotting except in emergency situations. **KEEP** weeds, debris and dead leaves cleaned out.

BROMELIADS

Mary Siemers

WATER as often as the temperature in your area requires, but provide good drainage, and never allow the soil to be soggy. **MAINTAIN** humidity by wetting surrounding areas, humidity is important in the well-being and growth of bromeliads. **PROTECT** plants from burning by keeping them under trees, shade cloth, lath, clear fiberglass, or any material that will provide plenty of filtered sunlight. Plants with sharp serrated leaves can take some direct sun. **CUT** off shoots (pups) during warm weather for faster and healthier growth. Best when they are 11/3 or 11 1/4 the size of the mother plant. **CONTINUE** a monthly fertilizing schedule throughout the warm weather with a water soluble fertilizer, high in acid, using 1/2 the recommended strength.

* * *

CACTUS AND SUCCULENTS

Joseph A. Betzler

WATCH plants during the hot weather - if they dry out too much they can shrivel and burn in the sun. **PROTECT** more delicate specimens with screens. **PROTECT** plants as they dry out, but be careful with those plants which are dormant. **FERTILIZE** growing plants half strength every other watering. **WATCH** plants for pests, especially snails. Treat immediately for any pests you observe. Take care with insecticides - use as manufacturer directs. **CHECK** collection for the plants that need to be repotted and do so. **ENJOY** your collection, take time to look at your plants. **CHECK** out the Horticultural Calendar and attend some plant shows, tours and talks.

* * *

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CONTINUE a good watering schedule, never let your plants dry out. **CONSIDER** drip irrigation due to our water shortage. **APPLY** your last high nitrogen fertilization. **CONTINUE** pruning of unwanted new growth to shape plants. **ADD** iron with your fertilizer for good green leaves and highly colored blooms. **CHECK** for mites - spray with Kelthane or Cygon. **STAKE** new growth before it hardens. **TRANSPLANT** potted plants as soon as new growth has stopped. **MULCH** with redwood compost or other suitable material at least an inch thick. **PROTECT** pots from direct sun as it will kill roots.

* * *

DAHLIAS

Abe Janzen

WATER often enough to keep foliage lush and prevent wilting. **KEEP** up regular feeding with a 5-10-10 fertilizer; use of potash alone will promote root growth. **TIE** canes to prevent breaking, use one loop for each cane. **DE-BUD** to encourage better blooms. **SPRAY** for insects and mildew; keep snails and slugs away.

* * *

EPIPHYLLUMS

San Diego Epiphyllum Society

WATCH moisture - spray during evening hours or early morning during hot days. **FERTILIZE** for new growth - use 10-10-15 at this time. **WATCH** for pests - spray or drench plant with Cygon for control. **REPOT** plants that have outgrown their containers. **START** new cutting during the hot weather. **KEEP** plants out of full sun - they need filtered sunlight with good air circulation.

* * *

FERNS

Ray Sodomka

REMOVE dead fronds. **PLANT** spores. **WATER** and maintain humidity by keeping the surrounding area damp. **FERTILIZE** plants regularly as they are in their growing period. Use a high nitrogen fertilizer. **SPRAY** for aphids and scale; keep snails, pill-bugs and slugs under control.

* * *

FUCHSIAS

William Selby

KEEP the foliage misted - spray only in the shade or early evening as moisture on the plants will act as a magnifier and result in burn spots. **CONTINUE** fertilizing with one high in phosphorous during blooming period. **PRUNE** lightly to shape after blooming to encourage more blooms for fall. **SPRAY** or drench plants with Cygon for systemic control of insects. **KEEP** spent blooms and seed pods picked for more and larger bloom. **KEEP** damp but not wet - do not overwater.

* * *

GERANIUMS (Pelargoniums)

Carol Roller

WATER thoroughly when plants become relatively dry. Each watering should moisten the entire soil ball. Excess water should drain away. Keep foliage as dry as possible. **CONTINUE** feeding a balanced fertilizer dissolved in water. Use at less than full strength, but apply as often as needed to keep plants from developing nutritional deficiencies. Long term pellets may be used instead. **CONTINUE** pest control and disease prevention using products according to the manufacturers' directions. **GROOM** plants, removing discolored leaves and faded flowers. The long bloom stalks on regals and scented should be cut away with a sharp blade. **TAKE** cuttings from zonals and ivy-leaf types, if desired. Each cutting should have a healthy growing tip. **PROTECT** tender plants from the sun if temperatures are high; move to a sheltered spot or create overhead shade. **CONTINUE** to rotate pots on a regular basis in order to keep the plants well shaped.

* * *

IRIS

Iris Society

DIVIDE and replant tall-bearded iris, discarding old spent rhizomes. **DUST** ends of rhizomes with soil sulphur. **WORK** humus into the soil to revitalize before planting. **FEED** those plants left in the ground with a good fertilizer to promote strong growth. **KEEP** iris beds clean and free of old fans and weeds. **WATCH** for aphids; use a light insecticide or a systemic. **CUT** off spuria foliage, but do not dig until September.

* * *

ORCHIDS
Charlie Fouquette

MIST and spray as days get hotter and drier. **CONTINUE** to water cymbidiums and plants that are in very coarse medium, such as large bark or hapu (tree Fern). **GROW** cymbidiums with a great deal of sunlight but do not burn. **CONTINUE** to dispense snail and slug bait. **WATCH** for infestations of red spider and scale, and treat accordingly. **KEEP** cymbidiums and paphiopedilums moist, but not wet. **CONTINUE** to feed cattleyas and phalaenopsis. **FEED** cymbidiums with a high nitrogen fertilizer. Remember to flush generously with water occasionally to wash out the salts that can build up in the pots.

* * *

ROSES
Carl Mahaney

WATCH for spider mites with the arrival of hot summer weather. Wash underside of leaves to

help remove the mites and also clean bushes prior to spraying. **KEEP** to a spraying schedule with Orthene for insects and Funginex for mildew and rust. **FEED** monthly with a balanced fertilizer; be sure to water before feeding. **WATER** deeply once or twice a week in hot weather. **BE SURE** to water before feeding or spraying. **GIVE** a heavy mulch to help conserve water. **CUT** your summer blooms and enjoy.

* * *

GREEN THUMB

REMOVE tops of spring bulbs after all foliage has died. **PLANT** and divide Shasta daisies. **PLANT** flowers for fall color: Calendulas, stock, cornflowers, snapdragons and zinnias. **PINCH** back chrysanthemums in late July for lusty plants and more flowers. **MOVE** and take divisions of bird-of-paradise. Give excellent drainage and acid soil. Cottonseed meal can be fed all year 'round. **FEED** azaleas - apply iron chelates if needed. **MOVE** belladonna lilies after they have bloomed.

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Book Reviews

ELSIE TOPHAM

ARKIN, FRIEDA

The Essential Kitchen Gardener

New York, Henry Holt, 1990

8" x 6", 346p, b & w illus,

\$24.95 hardcover

THIS HANDY GUIDE BOOK focusses on vegetables, berry fruits and herbs. It is arranged alphabetically, so it is easy to use, and there is a graph called Where To Plant When which clearly indicates planting times according to regions. There are some black and white illustrations, but these are for decoration, and the author does not seek to entertain the reader with color photographs. She concentrates on information, and the result is a book which will be as useful to vegetable gardeners as Betty Crocker's book is to cooks. Here the reader can learn about pests and diseases (and how to make your own repellents), about how to weed efficiently, and how to combat squirrels, rabbits and raccoons. Each plant is listed with full information on its cultivation, plus a section called Kitchen Tips and another called Garden Tips. For those who like to cook what they grow, the author recommends, e.g., ginger marmalade with butternut squash and sherry with turnips; and for those who concentrate on growing she has some sensible advice on watering and transplanting, among other topics. A good choice for a gift.

* * *

GREEN, MICHAEL

BUILDING FOR THE GARDEN 1989

Melbourne, Lothain Pub. Co.

11" x 8 1/2", 89p, col. photos,

diags, \$9.95 paperbound

ALTHOUGH THIS IS AN Australian publication this book offers much of interest to American gardeners. Using black and white photographs and plenty of clear diagrams, the author gives information on paving, walls, fences and screens, decks, pergolas and barbecues. He covers planning and construction and gives good advice on the selection of

materials. The color photographs are attractive as illustrations of techniques discussed in the text. No names are given, but perhaps it can be assumed that these pictures are all of Australian locations. The List of Useful Addresses is for Australia only, but the practical value of the advice far outweighs this disadvantage.

* * *

REED, VIRGINIA

SHADY GARDENS

Melbourne, Lothain Pub. Co., 1989

11" x 8 1/2", 60p, col. photos,

diags, \$9.95 paperbound

THIS BOOK IS PART OF the Lothian Australian garden series, and so all the photographs are of gardens Down Under, and the plants and trees described are those which are comfortable on the Australian continent. The author's study of her subject begins with some clear definitions of types of shade, and this sensible approach sets the tone for a practical and helpful book. She discusses shade plants and offers some suggestions on what to grow, and she gives some knowledgeable advice on dealing with problems; but the most useful sections are the chapters which deal with creating shade. Here we can learn both natural and artificial methods, and the information given makes the book a real acquisition for gardeners who work in sunny climates. Horticultural libraries will want this one.

* * *

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MATHEW, BRIAN

THE IRIS, rev. ed.

Portland, Timber Press 1990

6 1/4" x 9 1/4", 274p,

70 plates (some color),

22 ill, hardbound, \$32.95 plus \$3 shipping

HERE IS AN UPDATE OF the 1981 edition, which is widely used as a standard reference guide. Although it is of the greatest interest to botanists and professional growers, the text will appeal to experienced amateurs and the color photographs will delight all flower lovers; a bibliography and a glossary are included. The book is efficiently organized so that information is readily located. Wild irises are found in many regions, and it is sad that Brian Mathew remarks in his foreword that he could not produce a thorough revision because so many areas where these plants occur are at present out of bounds. It is to be hoped that this situation will change before too long; meanwhile Brian Mathew's book deserves attention.

* * *

CLARK, JILL

FUCHSIAS

CHESTER, CT, GLOBE PEQUOT PRESS, 1988

8 3/4" X 10 1/2", 144p, col. photos

zone map, hardcover, \$18.95

JILL CLARK IS AN AWARD-WINNING nursery owner in England, where she specializes in fuchsias, pelargoniums and epiphytic cacti. This study of fuchsias will be welcomed by both beginning and advanced growers. After devoting four pages to the history of fuchsias, Mrs. Clark discusses cultivation, propagation and training, pests and diseases and the use of fuchsias as houseplants. Between these chapters there is a large section of plates, featuring some ninety-seven stunning color studies. There is also a list of selected cultivars and another of recommendations, plus lists of societies and gardens to visit. The latter gives names of gardens in the U.S. and U.K. only. The American section concentrates on California, and it names a garden in San Diego which has been closed for many years. Perhaps prospective visitors should check this list before planning a trip.

* * *

VERNEY, PETER

THE GENIUS OF THE GAREN

Viking, Penguin, 1990

120p, bl & wh illus, col photos,

bibliog, index, \$29.95

SDFA HAS SEVERAL TITLES ON garden design and related topics, and this book will be a worthy addition to the group. Peter Verney's text is valuable for its information, which is based on very solid research, and for its readable style; married to Michael Dunne's beautiful photographs, the result is a book to be owned and cherished.. The author has traced the development of garden design from Ancient Persia, through medieval times to modern Europe and the Americas, and he delves deeply into the work of noted landscape artists, including William Robinson and Gertrude Jekyll. He has much to say on such topics as transitions and links, the vertical dimension, the use of water, mixed borders and outdoor rooms. His many examples, both pictured and described, provide a wealth of ideas for the gardener and garden planner. This book is a refreshment for the spirit as well as a stimulus for the intellect, and the author's passionate interest in his subject is evident on every page. He takes his readers to gardens in Texas and New England, to stately homes and cottages in England, to the Alhambra in Spain, and to France and Italy. From window box gardeners to owners of large lots, everyone will be touched by the philosophy of gardening expressed in this book. A very good select bibliography is included.

* * *

TANNER, OGDEN

GARDENING AMERICA; Regional and Historical Influences

New York, Viking, 1990

255p, col illus, bibliog, index

THIS HANDSOME BOOK HAS multiple uses. The many beautiful photographs (one or more on every page) provide material for coffee-table browsing, and the text is rich in information and ideas. Ogden Tanner has set out to survey gardens and gardening styles throughout the United States, and the result is a comprehensive chronicle which will be welcomed by students and professionals as well as amateurs. American gardeners work in differing regions, and there are many environmental problems here. This book focuses on the way in which these factors have shaped the development of gardening here, and also takes a look at possible consequences of these

influences. The author also discusses the historical aspects of his subject; the gardens of early New England were established to meet the need for food and medicine as well as to help the settlers

to establish their new homes. Today's gardens, reflecting the interests of some 70 million households, are apt to emphasize the art of beautiful landscaping, and the author shows us examples of plans which deal with the diverse climates and architectures of this country. To supplement the text he gives a list of gardens open to the public, and a list of relevant organizations, both arranged by region. There is also an excellent two-page bibliography.

* * *

ANGDON, BRIAN
BEGONIAS: The Care and Cultivation of Tuberous Varieties
 Chester, CT, Globe Pequot, 1989
 8 3/4" x 11", 144p, 100 col photos, illus, bibliog, maps, index, hardcover, \$19.95

(Classic Garden Plants Series)

SDFA MEMBERS MAY REMEMBER the Rosecroft Begonia gardens, operated here in Point Loma for many years. Perhaps because of Rosecroft, and also because the owner was a leader of SDFA, there is a particular interest in begonias in the San Diego Area. In his introduction Brian Langdon makes it clear that he is concentrating on tuberous begonias only. His book is well-organized and written in a clear and readable style, and his enthusiasm for his subject gives him additional authority. The emphasis of this work is on the practical aspects of growing begonias, but there is an interesting chapter on the history and origins of these beautiful plants. Like other titles in this series, the book gives lists of suppliers and begonia societies and recommends some modern varieties. There are useful illustrations in black and white and the 200 color photographs are accurate in tones.

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Lakeside Recreation Center
12219 Roberts Way Lakeside

LA MESA GARDEN CLUB

Pres: Mrs. Samuel D. James
5725 Urban Drive
La Mesa CA 92042-3922
619/465-5617

3rd Thu - 11:00 am
Except Jul Aug Nov
La Mesa Woman's Club
5220 Wilson Avenue La Mesa

LAS JARDINERAS

Pres: Mrs. Donald Giddings
2234 Caminito Preciosa Sur
La Jolla CA 92037-3337
619/270-1847

3rd Mon - 10:30 am
Home of Members

LEISURE WORLD GARDEN CLUB

Pres: Mrs. Wayne F. Dyer
13171 St. Andrews Drive #154L
Seal Beach CA 90740-3446
213/596-4161

ORGANIC GARDEN CLUB SAN DIEGO

Pres: John Miller
10836 Calle Verde Drive #153
La Mesa CA 92041-8308
619/660-9756

3rd Fri - 7:30 pm
Jan-Mar-May-Jul-Sep-Nov
Casa del Prado Balboa Park

BROMELIAD STUDY GROUP OF BALBOA PARK

Learn How to Grow Beautiful Bromeliads
Meetings 7:30 P.M. 2nd Tuesday of Each Month
Visitors and New Members are Welcome
Refreshments 7:00 P.M.

BALBOA PARK AFRICAN VIOLET SOCIETY

Meets at 7 p.m. - 4th Monday of each month
Room 101, Casa del Prado, Balboa Park
Desert 6:30 p.m.
Meeting and culture program 7 p.m.
Visitors and members are welcome.

San Diego Floral Association, Inc.

Club and Professional Affiliates

PACIFIC BEACH GARDEN CLUB

Pres: Michiko Munda
1544 Oliver Avenue
San Diego CA 92109-5321
619/272-9727

2nd Mon - 1:00 pm
Sep thru Jun
Recreation Center
Pacific Beach

POINT LOMA GARDEN CLUB

Pres: Dolly Brabant
390 San Antonio #15
San Diego CA 92106-2434
2nd Wed - 10:00 am
Sep-Jun 3598 Talbot
Westminister Presby Church

PALOMAR DISTRICT

CALIFORNIA GARDEN CLUBS, INC.

Dir: Mrs. John H. Lewis
11330 Vista La Cuesta Drive
San Diego CA 92131-1914
619/566-5727

POWAY VALLEY GARDEN CLUB

Pres: Brenda Robinson
P. O. Box 27
Poway CA 92064
619/748-1978

2nd Wed - 9:00 am
Lake Poway Pavilion

RANCHO SANTA FE GARDEN CLUB

Pres: Mrs. Phyllis Aylmer
Hort Chrm: Vera Sanjana
P. O. Box 1257
Rancho Santa Fe CA 92067-1646
2nd Tue - 7:30 pm
Rancho Santa Fe Garden Club
Avenida de Acacias
SAN CARLOS GARDEN CLUB
Pres: Joan Bales Mitchell
7575 Conestoga Way
San Diego CA 92120-1316
619/583-6826

4th Tuc - 9:30 am
Home of Members

SAN DIEGUITO GARDEN CLUB

Pres: Mrs. Hans Kaspar
1905 Hummock
Encinitas CA 92024-1908
619/753-4087

1st Wed
9:30 am - Refreshments
10:00 am Meeting
Quail Botanical Gardens

THE VILLAGE GARDEN CLUB OF LA JOLLA

Pres: Mrs. Harley Cope
8686 Cliffridge Avenue
La Jolla CA 92037-2113
619/546-9047

4th Thu - 1:00 pm
Sep thru May
United Methodist Church

THE VISTA GARDEN CLUB

Pres: Mrs. James McConnell
1268 Waxwing Drive
Vista CA 92083-3045
1st Fri - 12:00 pm
Vista Senior Service Center
222 Jefferson St. Vista

IKEBANA SCHOOLS

ICHIYO SCHOOL OF IKEBANA SAN DIEGO CHAPTER

Pres: Haruko Crawford
10411 San Carlos Drive
Spring Valley CA 92078-1034
619/660-2046

IKEBANA INTERNATIONAL CHAPTER 119

Pres: Barbara E. Church
5845 Friars Road #1113
San Diego CA 92110-6004
619/298-1535

4th Wed - 10:00 am
Sep thru Jun
Casa del Prado Balboa Park

IKENOBO CHAPTER OF SAN DIEGO

Pres: Mrs. Charles Oehler
2822 Walker Drive
San Diego CA 92123-3056
619/278-5689

OHARA SCHOOL OF IKEBANA

LA JOLLA CHAPTER
Pres: Mrs. Robert Fox
922 Skylark Drive
La Jolla CA 92037
619/456-0559

2nd Tues - 10:00 am
Forum Hall University Town
Center La Jolla

OHARA SCHOOL OF IKEBANA

SAN DIEGO CHAPTER
Pres: Mrs. Walter Bourland
2936 Havasupai Avenue
San Diego CA 92117-1641
619/276-4667

SOGETSU SCHOOL OF IKEBANA

Pres: Mrs. Leroy Lahey
2829 Flax Drive
San Diego CA 92154-2160
619/429-6198

PLANT SOCIETIES

AFRICAN VIOLETS

SAN DIEGO DAYTIME AFRICAN VIOLET SOCIETY

Pres: Betty Roberson
3612 Laredo Drive
Carlsbad CA 92008-2172
619/729-6772

2nd Mon - 1:00 pm
Christ United Methodist
Church San Diego

BALBOA PARK AFRICAN VIOLET SOCIETY

Pres: Melba Batchelor
4th Mon - 6:30 pm Dessert
7:00 pm Meeting
Casa del Prado Balboa Park
HEARTLAND AFRICAN VIOLET SOCIETY
Pres: Mrs. Dixie Puckett
697 Ellen Lane
El Cajon CA 92019-1933
619/588-0509

3rd Tue - 7:00 pm
Wells Park Center
1153 East Madison El Cajon

AROID

INTERNATIONAL AROID SOCIETY

Pres: Bruce McManus
11691 SW 93rd Street
Miami FL 33176-1009
305/271-3767

BAMBOO

AMERICAN BAMBOO SOCIETY

Pres: Richard A. Haubrich
Box 640
Springville CA 93265-0640
209/481-9869

BEGONIA

ALFRED D. ROBINSON BRANCH

AMERICAN BEGONIA SOCIETY
Pres: Mary Zemcik
4157 Catalina Place
San Diego CA 92107-2611
619/223-6439

2nd Tue - 10:30 am
Home of Members

SAN MIGUEL BRANCH

AMERICAN BEGONIA SOCIETY
Pres: Toni Baker
6475 50th Street
San Diego CA 92120-1323
619/582-7516

1st Sat - 10:00 am
Home of Members

BONSAI

SAN DIEGO BONSAI CLUB, INC.

Pres: Everett Jones
P. O. Box 40037
San Diego CA 92104-0970
619 421-3721

2nd Sun - 11:00 Workshop
1:00 pm Meeting
Casa del Prado Balboa Park

BROMELIAD

BROMELIAD STUDY GROUP OF BALBOA PARK

Pres: Mary Siemers
4614 Constance Drive
San Diego CA 92115-3108
619/284-2813

2nd Tue - 7:30 pm
Casa del Prado Rm 104
Balboa Park San Diego

San Diego Floral Association, Inc. Club and Professional Affiliates

SAN DIEGO BROMELIAD SOCIETY

Pres: David Waller
10272 Black Mountain Rd.
#160
San Diego CA 92126-3831
619/578-7041

1st Thu - 7:45 pm
Byzantine Catholic Church
2235 Galahad Road Serra Mesa

CAMELLIA

SAN DIEGO CAMELLIA SOCIETY

Pres: Dean Turney
631 West Pennsylvania Avenue
San Diego CA 92103-3951
619/299-5418

3rd Wed - 7:30 pm
Casa del Prado Balboa Park

CACTUS & SUCCULENT

PALOMAR CACTUS AND SUCCULENT SOCIETY

Pres: Gene Eisenberg
P. O. Box 840
Escondido CA 92025
619/487-1051

4th Sat - 12:45 pm
Joslyn Senior Center
724 N. Broadway Escondido

SAN DIEGO CACTUS AND

SUCCULENT SOCIETY

Pres: Chuck Adams
7305 Rock Canyon Drive
San Diego CA 92126-1061
619/530-2551

2nd Sat - 1:30pm
Casa del Prado Balboa Park

DAHLIA

AMERICAN DAHLIA SOCIETY INC.

Mem Chmn: Michael Martinolich
159 Pine Street
New Hyde Park NY 11040-2446
516/742-3898

SAN DIEGO COUNTY DAHLIA

SOCIETY

Pres: Gerald Lohmann
6616 Rockglen Avenue
San Diego CA 92111-4108
619/279-5135

4th Tue - 7:30 pm
Except Jul & Dec
Casa del Prado Balboa Park

EPIPHYLLUM

SAN DIEGO EPIPHYLLUM SOCIETY

Pres: Sean Minogue
808 Ethel Place
National City CA 92050-4109
619/475-4478

2nd Wed - 7:30 pm
Casa del Prado Balboa Park

EXOTIC

EXOTIC PLANT SOCIETY

Pres: George Plaisted
6356 Delbarton
San Diego CA 92120-2618
619/583-9551

4th Tue - 7:00 pm
Wells Recreation Center
1153 E. Madison El Cajon

FERN

SAN DIEGO FERN SOCIETY

Pres: George Plaisted
6356 Delbarton Street
San Diego CA 92120-2618
619/583-9551

3rd Thu - 7:30 pm
Casa del Prado Balboa Park

FRUIT

CALIFORNIA RARE FRUIT GROWERS

4991 Southcrest Avenue
San Diego CA 92110
619/276-7896

FUCHSIA & SHADE PLANTS

SAN DIEGO COUNTY BRANCH

NATIONAL FUCHSIA SOCIETY

Pres: Robin Whitecotton
620 Melba #11
Encinitas CA 92024
619/942-8018

2nd Thu - 7:00 pm
Palmquist Elementary School
1999 California St. Oceanside

SAN DIEGO FUCHSIA AND

SHADE PLANT SOCIETY

Pres: Bill Simpson
58 "I" Street
Chula Vista CA 92010-4924
619/422-7055

2nd Mon - 7:30 pm
Casa del Prado Balboa Park

SUN HARBOR BRANCH

NATIONAL FUCHSIA SOCIETY

Pres: Robert Matlock
1333 New Chatel Drive
San Diego CA 92154-2937
619/423-0213

4th Wed - 7:00 pm.
Casa del Prado Balboa Park

GERANIUM

SAN DIEGO GERANIUM SOCIETY

Pres: Barbara Jolly
1412 Tenth Street
Imperial Beach CA 92032-3433
619/424-5659

2nd Tue - 7:30 pm
Casa del Prado Balboa Park

GESNERIAD

SAN DIEGO GESNERIAD SOCIETY

Corresponding Secretary:
Lois Donahue
3251 Innuitt Avenue
San Diego CA 92117-3521
619/273-9677

3rd Wed - 7:30 pm
Feb Apr Jun Aug Oct Dec
St. David's Parish Hall
5050 Milton Street

HEMEROCALLIS

SOUTHWEST HEMEROCALLIS SOCIETY

Pres: Paul Strauss
7887 Revelle Drive
La Jolla CA 92037-3539
619/453-1998

1st Sat - 10:00 am
Feb-Apr-Jun-Sep-Nov
Quail Botanical Gardens
Encinitas

IRIS

SAN DIEGO/IMPERIAL COUNTIES

IRIS SOCIETY

Pres: William Barr
12565 Cloudesley Drive
San Diego CA 92128-3527
619/451-6333

IVY

THE AMERICAN IVY SOCIETY

CALIFORNIA CHAPTER

Pres: Yolanda de Silva
16005 Fellowship Road
Valinda CA 91744-1323
Local Contact:
Francis Rynearson
619/459-1235

NATIVE PLANTS

CALIFORNIA NATIVE PLANT SOCIETY

SAN DIEGO CHAPTER

Pres: James Dice
6066 Portobelo Court
San Diego CA 92124-1114
619/478-0326

3rd Tue - 7:30 pm
Casa del Prado Balboa Park

LAKE HODGES NATIVE PLANT CLUB

Pres: Dorris Baur
16516 Gabarda Road
San Diego CA 92128-3021
619/487-6614

3rd Mon - 3:00 pm
16003 Turtleback Road
Rancho Bernardo

SUN HARBOR BRANCH

National Fuchsia Society

Meetings held 7 PM, 4th Wednesdays
Room 101, Casa Del Prado, Balboa Park

Visitors Welcome!

San Diego Floral Association, Inc. Club and Professional Affiliates

ORCHID CYMBIDIUM SOCIETY OF AMERICA, INC. SAN DIEGO COUNTY BRANCH

Pres: Kathy Beiz
2767 High Mend Circle
Vista CA 92084-1830

619/941-0382

3rd Thu - 7:30 pm
Oct thru Jun Quail Botanical
Gardens Encinitas

PALOMAR ORCHID SOCIETY

Pres: Neta Jaynes
802 McDonald Road
Fallbrook CA 92028-3540

619/728-8974

2nd Fri - 7:30 pm
Vista Senior Center
222 Jefferson St. Vista

SAN DIEGO COUNTY ORCHID SOCIETY

Pres: Dr. Bernard Roth
4477 Ampudia Street
San Diego CA 92103-4531

619/296-6437

1st Tue - 7:30 pm
Casa del Prado Balboa Park

ROSE

CALIFORNIA COASTAL ROSE SOCIETY

Pres: Steve Marvin
P. O. Box 133
Carlsbad CA 92008-0030

619/433-2454

3rd Tue - 7:00 pm
Calavera Hills Community
Center Carlsbad

EAST COUNTY ROSE SOCIETY

Pres: Sally Long
1663 Fuerte Ranch Road
El Cajon CA 92019-3730
1st Sun - 2:00 pm
Gardens of Members

SAN DIEGO ROSE SOCIETY

Pres: Dallas Runion
1627 Regulus Street
San Diego CA 92111-7129
619/279-6134

3rd Mon - 7:30 pm
Oct thru Jun
Casa del Prado Balboa Park

WATER LILY

THE WATER LILY SOCIETY

Pres: Norman Bennett
c/o Charles B. Thomas, Sec.
P. O. Box 104
Buckeyestown MD 21717-0104
301/874-5373

PROFESSIONAL AFFILIATES

ARTISTIC PRUNING

Jim Stelluti
1928 Madison Avenue
San Diego CA 92116-2722
619/298-7641

ELLIS FARMS

1325 Borrego Valley Road
Borrego Springs CA
92004-0961
619/757-5235

LINDA A. FARRIER

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Lecudadia CA 92024-1804
619/436-7092

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7964 High Street
La Mesa CA 92041-7865
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2055 Rice Canyon Road
Fallbrook CA 92028-9631
619/723-8678

HOUSE OF BODE

Mr. & Mrs. William T. Bode
2800 Huntington Road
Sacramento CA 95864-5638
916/483-5977

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3616 Rudnick Drive
Jamul CA 92035-9622
619/445-2934

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Gary Rodriguez
3089-C Clairemont Drive #296
San Diego CA 92117-6802
619/276-6016

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5115 Linda Vista Road
San Diego CA 92110-2602
619/297-4216

SUNSHINE GARDENING SERVICE

Ken Fernandes
3021 McCall
San Diego CA 92106-3464
619/224-1930

NON-AFFILIATE SOCIETY

SAN FRANCISCO

SUCCULENT & CACTUS SOCIETY

Pres: Jon Dixon
55 Tum Suden Way
Woodside CA 94062
415/363-0626

3rd Tue - 7:30 p.m.
City & County Fair Building
Golden Gate Park
9th Avenue & Lincoln Way
San Francisco

- Aug. 17 through Sept. 3 CALIFORNIA STATE FAIR Floriculture Exhibit & Competition
1600 Exposition Boulevard, Sacramento
1990 Theme: "CA Geography". Floral exhibit categories
to be representative of the State's diverse landscapes.
Daily: 10 a.m.-10 p.m. Admission: \$6 adults; children
& seniors less. Parking \$3. Call 916/924-2015.
- Aug. 18 & 19 SAN DIEGO FERN SOCIETY 12th Annual Show
Casa del Prado, Majorca Room, Balboa Park
Sat.: 1-5 p.m.; Sun.: 10-5 p.m. Free.
- Aug. 25 & 26 PALOMAR BRANCH, AMERICAN BEGONIA SOCIETY, Judged Show & Sale
Quail Botanical Gardens, 230 Quail Gardens Drive, Encinitas
Sat.: 1-5 p.m.; Sun.: 10-4 p.m. Free. Call 746-4743.
- Aug. 26 SOUTH COAST BOTANIC GARDEN Lecture
26300 Crenshaw Boulevard, Palos Verdes Peninsula
Sid Horton to discuss planting winter vegetables
& water conservation techniques. Visitors
to be conducted on a stroll through the garden.
2 p.m. Garden admission: \$3. Call 213/772-5813.

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HORTICULTURAL
EVENTS CONTINUED
ON BACK PAGE

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SAN DIEGO FLORAL ASSOCIATION, INC.
GARDEN CENTER & LIBRARY
CASA DEL PRADO ROOM 105 SAN DIEGO CA 92101-1619
619/232-5742

3rd Tue - Feb Apr Jun Oct
Casa Del Prado Room 101
Balboa Park San Diego

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Polly Whigham
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Under the sponsorship of the Park & Recreation Department, City of San Diego, California

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HORTICULTURAL EVENTS CONTINUED

Sept. 15 & 16 SAN DIEGO BROMELIAD SOCIETY 16th Annual Show
Casa del Prado, Majorca Room, Balboa Park
Sat.: 1-4:30 p.m.; Sun.: 11-4:30 p.m. Free.

Sept. 29 & 30 SAN DIEGO BONSAI CLUB, INC., Fall Show
Casa del Prado, Majorca Room, Balboa Park
Sat. & Sun.: 10-5 p.m. Free.

Every Saturday OFFSHOOT TOURS One-Hour Plant Walks in Balboa Park
Meet in front of Botanical Lath House.
Cancelled for rain or less than 4 attendees.
1st Sat.: Heart of the Park Tour; 2nd Sat.: Palm Walk; 3rd Sat.:
Tree Walk; 4th Sat.: Desert Walk; 5th Sat.: Sample of all 4 tours.
10 a.m. Free. No reservations. Call 239-6969.

Deadline for submission to Horticulture Calendar for Sept./Oct. issue is July 15.

SAN DIEGO FLORAL ASSOCIATION is not responsible for changes in information which has been submitted by the organizations.

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Casa del Prado, Balboa Park
San Diego, CA 92101-1619, USA

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